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IS 3008 (2002): Brushes, Shoe Blacking [CHD 24: Brushware]

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जूते काले करने वाले ब्रुश — विशिष्टि

(तीसरा पुनरीक्षण)

Indian Standard

BRUSHES, SHOE BLACKING — SPECIFICATION

(Third Revision)

ICS 61.060; 87.100

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

August 2002

Price Group 4

Brushware Sectional Committee, CHD 24

FOREWORD

This Indian Standard (Third Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Brushware Sectional Committee had been approved by the Chemical Division Council.

The brush, shoe polishing, as its name denotes, is used for polishing of shoe, leather etc. Brush, shoe blacking is a close-set pattern brush opposed to brush, shoe polishing. This permits easy take up of the polish on the brush as the filling material does not spread out because of the close-set pattern.

There is no ISO Standard on this subject. This standard is developed based on the indigenous technology available in India.

This standard was first published in 1964 based on IND/GS/29C-1950 'Brushes, shoe blacking', issued by the Ministry of Defence, Government of India. In the first revision during 1971, the use of brass wire and brass nails had been discontinued, and tolerances on linear dimensions had been liberalized. Requirements for minimum length of the filling material in a brush had also been changed. In the second revision during 1993, the filling material was changed to cow tail hair from horse-tail hair in view of the scarcity of horse-tail hair. The allowable moisture content of the timbers was increased to accommodate different atmospheric moisture content in different parts of India in different seasons. The number and dimensions of tuft holes were also changed. The total weight of filling material was decreased as it does not affect the performance of the product.

In this revision, requirements of approved sample have been deleted, use of HDPE/ LDPE/ FRP has been incorporated along with the timber to check deforestation. Shelf-life of the brushes has also been incorporated. Total mass of the filling material, and the requirements on total length of cows-tail hair has been modified in this revision.

The composition of the Committee responsible for formulation of this standard is given in Annex D.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised)*'. The number of significant places retained in the rounded off value should be the same as that given in this standard.

AMENDMENT NO. 3 JULY 2006
TO
IS 3008 : 2002 BRUSHES, SHOE BLACKING — SPECIFICATION

(Third Revision)

(*Page* 1, *clauses* **4.1.2** to **4.1.13**) — Renumber **4.1.2** as **4.1.1.1, 4.1.2.1** as **4.1.1.2, 4.1.2.2** as **4.1.1.3** and **4.1.2.3** as **4.1.14.**

(CHD 24)

Reprography Unit, BIS, New Delhi, India

AMENDMENT NO. 2 SEPTEMBER 2004
TO
IS 3008 : 2002 BRUSHES, SHOE BLACKING — SPECIFICATION

(Third Revision)

(*Page* 1, *clause* **2**) — Insert the following at the end:

'8960 : 1978	Specification for methyl parathion dusting powders
14834 : 2000	Lindane dusting powder — Specification'

(*Page* 3, *clause* **4.8**) — Substitutey 'Lindane 6.5% DP *(see* IS 14834) or nethyl parathion 2% DP *(see* IS 8960)' *for* 'DDT dusting powder'.

(*Page* 3, *clause* **4.9**, *line* 1 *)* — Substitute 'shelf life' *for* 'shift-life'.

CHD 24)

Reprography Unit, BIS, New Delhi, India

AMENDMENT NO. 1 FEBRUARY 2004
TO
IS 3008 : 2002 BRUSHES, SHOE BLACKING — SPECIFICATION
(Third Revision)

(*Page* 2, *clause* **4.4**) — Substitute the following for the existing clause:

'4.4 Initial Length of Filling Material

The total length of 75 percent of the filling materials used, when tested by pulling out ten tufts from the finished brush shall be not less than 60 mm.'

(*Page* 3, *clause* **4.6**, *last sentence*) — Substitute the following for the existing:

'The average mass of filling material per brush shall be assessed by taking the average mass of filling material of three brushes in lots not exceeding 300 brushes and six brushes in lots more than 300 brushes.'

(CHD 24)

Reprography Unit, BIS, New Delhi,

Indian Standard
BRUSHES, SHOE BLACKING — SPECIFICATION
(Third Revision)

1 SCOPE

This standard prescribes requirements and methods of sampling and test for brush suitable for shoe blacking.

2 REFERENCES

The following Indian Standards contain provisions which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below :

IS No.	*Title*
380 : 1978	French chalk, technical *(second revision)*
707 : 1976	Glossary of terms applicable to timber technology and utilization (*second revision*)
3451 (Part 2) : 1975	Code of practice for care and maintenance of brushes: Part 2 Brushes other than pan set brushes
5060 : 1969	Glossary of terms used in brushware industry
8592 : 1977	Methods for identification of brush filling materials of animal origin.

3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 707 and IS 5060 shall apply.

4 REQUIREMENTS

4.1 Filling Material

This shall consist wholly of cow tail hair which shall be clean, free from dust, other extraneous matter and shall comply with the requirements given in **4.4** and **4.4.1.**

4.1.1 *Back and Board*

4.1.2 Back and board shall be made of HDPE/LDPE/FRP or timber.

4.1.2.1 Any of the timber species listed in Annex A shall be used in the manufacture of the wooden portion of the brush.

4.1.2.2 The timber shall be reasonably straight grained and well-seasoned to a moisture content not exceeding 20 percent when tested by either electronic moisture meter method or oven-drying method. However, in case of dispute, the oven-drying method shall be used (*see* Annex B).

4.1.2.3 The timber shall be free from brashness, any kind of biological or non-biological deterioration insect attack, centre heart (Pith), knots (except pin knot), crack warp or other defects which may reduce the life of the brush or affect its utility.

4.1.2 *Wire*

Galvanized iron wire of 0.42 ± 0.05 mm diameter for fastening tufts of filling material in case of wire-drawn brushes shall be used.

4.1.3 *Staples*

Staples of bright iron wire of $0.71^{+0.05}_{-0.03}$ mm in diameter shall be used.

4.1.4 *Nails*

Mild steel nails, 10 ± 1 mm long and 1.4 ± 0.2 mm in diameter shall be used for securing back over the exposed portion of the board. Suitable adhesive may be used if back and board are manufactured from HDPE/LDPE/FRP for fixing back and board.

4.2 Manufacture

4.2.1 The brush shall conform to the shape and design shown in Fig. 1.

4.2.2 The back and board, if made of timber, shall be manufactured from the same species of timber.

4.2.3 The board shall be drilled with 73 ± 2 tuft holes of the shape and size as indicated in Fig. 1.

4.2.4 *For Wire-Drawn Brush*

The tufts of hair shall be firmly drawn into the tuft holes by means of galvanized iron wire and thoroughly bottomed so that they may not be subsequently knocked back. The back shall be secured with 6 mild steel nails as shown in Fig. 1 in such a manner that they do not foul the wire or the filling materials.

4.2.5 *For Staple-Set Brush*

No back is required. The tufts of filling material shall be cross-stapled and securely set to the bottom of the tuft holes by machine to give the shape of the brush as shown in Fig. 1.

4.2.6 The filling material shall be trimmed straight-faced to give the shape as shown in Fig. 1.

4.3 Dimensions and Tolerances

4.3.1 *Dimensions*

The brush shall conform to the dimensions given in Fig. 1.

4.3.2 *Tolerances*

The tolerances on the linear dimension shall be as follows:

Nominal Dimension mm	*Tolerance* mm
Up to 15	± 1.0
Over 15 but below 40	± 2.0
40 and above	± 3.0

4.3.2.1 A tolerance of ± 1.0 mm shall be allowed on the diameter of the tuft holes.

4.3.2.2 The tolerances specified in **4.3.2** and **4.3.2.1** shall not apply to filling material for which minimum lengths have been prescribed in **4.4.**

4.4 Initial Length of Filling Material

The total length of 75 percent of the filling materials used, when tested by pulling out ten tufts from the finished brush shall be less than 55 mm

4.4.1 *Identification of Filling Material*

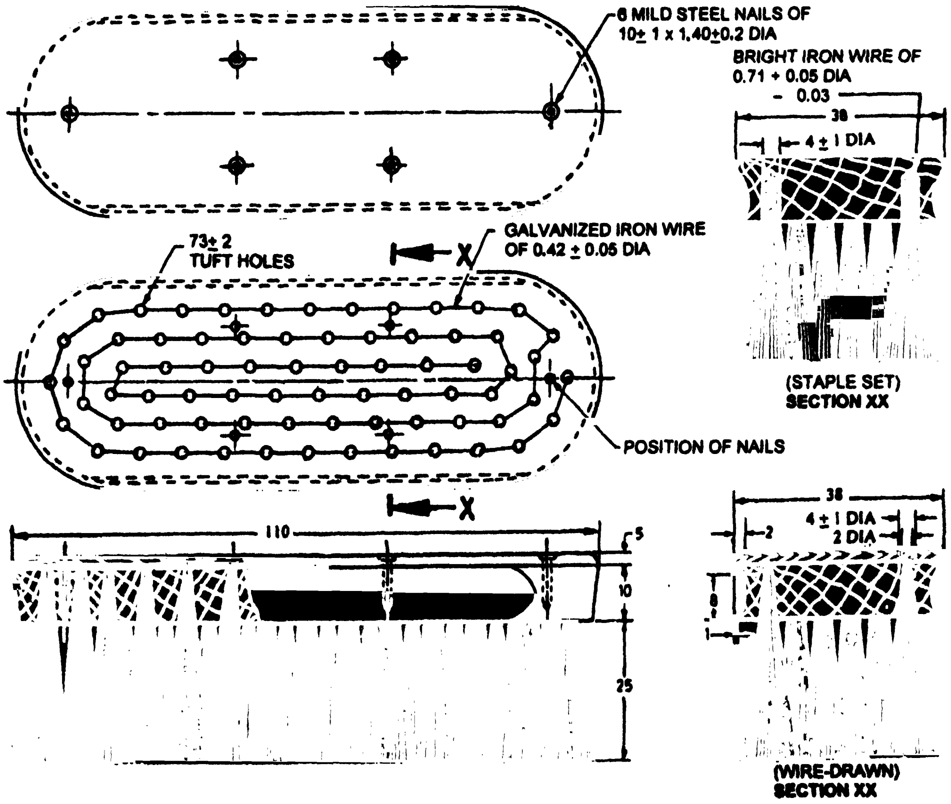
In case of dispute regarding the origin of filling material, microtomy through microscopic examination and comparison of cross sections of the filling material shall be resorted to. The section thus prepared shall be compared with Fig.7 and 8 of IS 8592.

4.5 Pull Test

The tufts of filling material shall not come out when subjected to a straight pull with thumb and finger grip.

4.6 Mass of Filling Material per Finished Brush

The total mass of the filling material per brush when determined by unfastening the tufts by removal of galvanized iron wire or staples shall be at least 22 g. A tolerance of ± 5 percent shall be allowed, provided



All dimensions in millimetres.

FIG. 1 BRUSH, SHOE BLACKING

the average mass of the filling material per finished brush in any lot is not below that specified. The average mass of the filling material per brush shall be assessed by taking the average mass of filling material of brushes in lots not exceeding 300 brushes and 6 brushes in lots more than 300 brushes.

4.7 Workmanship and Finish

4.7.1 The wooden portion of the brush shall be finished smooth and suitably polished or painted.

4.7.2 In general workmanship and finish, the brush shall match the approved tender sample.

4.8 Preservation

The filling material of the brush shall be liberally dusted with a mixture of 5 parts (by mass) of DDT dusting powder and 95 percent by mass of French chalk (*see* IS 380).

4.9 Shelf Life

The brush shall have a shift life of one year from the month of manufacture provided proper storage conditions are used and adequate precautions are taken for preserving them as given under **4** of IS 3451 (Part 2).

5 PACKING AND MARKING

5.1 Packing

5.1.1 The packing shall be as agreed to between the purchaser and the supplier, but it shall be such as to ensure retention of the preservative (*see* **4.8**).

5.2 Marking

5.2.1 Unless otherwise agreed to between the indentor or inspection authority and the supplier, each brush shall be legibly and indelibly marked or stamped with the following:

a) Name of the manufacturer, and

b) Month and year of the manufacture.

5.2.2 In addition to the marking specified in **5.2.1** the brush shall also be marked 'pure cow tail hair' on the wooden portion of the brush.

5.2.3 *BIS Certification Marking*

The brushes may also be marked with the Standard Mark.

5.2.3.1 The use of the Standard Mark is governed by the provisions of *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

6 SAMPLING

The method of drawing representative samples of the brushes and the criteria for conformity shall be as prescribed in Annex C.

7 CARE AND MAINTENANCE

Guidance on care and maintenance of brushes is given in IS 3451 (Part 2).

ANNEX A

(*Clause* 4.1.2.1)

SPECIES OF TIMBER FOR MANUFACTURE OF WOODEN PORTION OF BRUSH

A-1 The list of species of timber approved for the manufacture of wooden portion of brushes, shoe polishing, is given below:

Trade Name		**Botanical Origin**
Roman	**Devanagari**	
Aini	**ऐनी**	***Artocarpus hirsuta* Lamk., fam. Moraceae**
Banati	**बनाती**	***Lophopetalum wighianum* Arn., fam. Celastraceae**
Bijasal	**बीजसाल**	***Pterocarpus marsupium* Roxb., fam. Magnciliaceae**
Jam (Black Berry)	**जैम**	***E. cymosa*, Roxb. Fl. Ind.**
Champak	**चम्पक**	***Michelia champaca* Linn., fam. Magnoliaceae**
Chickrassi	**चिकरासी**	***Chukrasia tabularis* A.Juss., fam. Meliaceae**
Dhaman	**धामन**	***Guswia ilifolia* Vahl., fam. Tiliaceae**
Gamari (gumhar)	**गमारी (गुम्हार)**	***Gmelia arborea* L., fam. verbenaceae**
Krishnachura (Gold Mohar)	**कृष्णचूरा**	***Poinciana Pulcherrima*, Roxb. Fl. Ind.**
Haldu	**हल्दु**	***Adina cordifolia* Hook f. fam. Rubiaceae**
Kadam	**कदम**	***Anthocephalus chinensis*** ***Nauclea Cadamba*, Roxb. Fl. Ind. i;** ***Sarcocephalus Cadamba*, Kurz for Fl.**
Kaim	**कैम**	***Mitragyna parvifolia* (Roxb.) Korth. syn. *Stephegyne parvifolia* Korth., fam. Rubiaceae**
Kanju	**कांजू**	***Holopteiea integrifolia* (Roxb.)Planch fam. Ulmaceae**
Karanja	**करांजा**	***Galedupa Indica, Lam*; Roxb. Fl. Ind.**
Kathal	**कठहल**	***Artocarpus heterophyllus* Lamk. Syn. A. *integrifolius Auct.*, fam. Moraceae**
Kuthan	**कुथन**	***Hymenodictyon excelsum* Wail, fam. Rubiacae**
Lambapatti	**लम्बापति**	***Planchonella longipetiolatum* H.J. Lam., syn. *Sideroxylon longipetiolatum* King and Prain, fam. Sapotaceae**
Aam (Mango)	**आम**	***Mangifera indica* Linn. fam. Anacardiaceae**
Mahogini	**महगनी**	***Swietenia* spp.**
Nim-chameli	**नीम–चमेली**	***Millingtonia hortensis* Linn. F. fam.,Bignoniaceae**
Kodapalai (piney)	**कोडपलाई (पिनी)**	***Kingiodendron pinnatum* Harms, syn. *Hardwickla pinnata* Roxb., fam. Leguminosae**
Saibabla	**साईबबला**	***Mimosa Arabica*, Roxb. Fl. Ind.**
Siris	**सिरिस**	***Albizia Chinensis*** ***Mimosa Sirissa*, Roxb. Fl. Ind.**
Toon	**तून**	***Toona ciliata* Roem., syn. *Cedrela toona* Roxb., fam. Meliaceae**

ANNEX B

(*Clause* 4.1.2.2)

DETERMINATION OF MOISTURE CONTENT OF TIMBER USED IN BRUSHES, SHOE POLISHING

B-1 TEST SPECIMEN

The entire block used in the brushes, shoe polishing may form the test specimen for determination of moisture content or a coupon cut from the test specimen may as well, be used for moisture content determination. When for any reason additional determination of moisture content is required, separate samples shall be prepared from the same material as is used in preparing the test specimens. Smaller specimens may be used when deemed necessary. The test shall be carried out immediately after cutting the specimen.

B-2 APPARATUS

B-2.1 Air Oven

Suitable to control the temperature of 105 ± 2°C.

B-2.2 Weighing Balance

B-3 PROCEDURE

Weigh accurately each test specimen. This specimen shall then be dried in a ventilated oven at a temperature of 105 ± 2°C until the mass becomes constant between two successive weighings made at an interval of not less than one hour.

B-4 CALCULATION

The moisture content, expressed as a percent of the dry mass is given by the formula:

$$\text{Moisture content} = \frac{W_1 - W_0}{W_0} \times 100$$

where

W_1 = initial mass, in g, of the test specimen; and

W_0 = dry mass, in g, of the test specimen.

ANNEX C

(*Clause* 6)

SAMPLING AND CRITERIA FOR CONFORMITY

C-1 GENERAL

Samples of brushes for testing shall be selected at random in the manner indicated below.

C-2 METHOD OF SAMPLING

C-2.1 Lot

In any consignment, all the brushes of the same size and quality shall be divided into groups of 1 000 brushes or less and each such group shall constitute a lot. Care shall be taken to ensure that brushes included in a lot do not differ in construction as far as possible.

C-2.1.1 The conformity of the brushes in a lot to the requirements of this standard shall be ascertained for each lot separately. The number of brushes to be selected for this purpose shall be in accordance with col 1 and 2 of Table 1.

Table 1 Scale of Sampling

(*Clauses* C-2.1.1 and C-2.1.2)

No. of Brushes in the Lot, *N* (1)	No. of Brushes to be Selected, *n* (2)
Up to 10	2
11 to 25	3
26 " 50	4
51 " 100	5
101 " 150	6
151 " 300	7
301 " 500	8
501 " 750	9
751 " 1 000	10

C-2.1.2 The brushes shall be selected at random. To ensure randomness of selection one of the following procedures is recommended for use:

a) If the brushes in a lot are packed in one box, then starting from any brush, count them in any suitable order as 1, 2, 3, ... up to *r* which is the integral part of *N/n* (*N* and *n* being the lot size and sample size respectively). Every *r*th brush, thus counted shall be drawn to constitute the sample.

b) If the brushes in a lot are packed in more than one box, approximately equal number of brushes shall be picked up at random from as many boxes as possible so as to obtain the required number of brushes as specified in Table 1.

C-3 NUMBER OF TESTS

Tests for all the brushes shall be conducted on the individual brushes in the sample.

C-4 CRITERIA FOR CONFORMITY

For declaring the conformity of the lot to the requirements of this standard, all the brushes selected according to **C-2.1.2** shall satisfy the relevant requirements given in **4.1** to **4.8**.

ANNEX D

(Foreword)

COMMITTEE COMPOSITION

Brushware Sectional Committee, CHD 24

Organization	*Representative(s)*
A. B. Composite Private Limited, Kolkata	SHRI ANUKUL SAMANTA (*Chairman*)
A. B. Composite Private Limited, Kolkata	SHRI BASUDEV SAMANTA
All India Plastic Manufacturers' Association, Mumbai	SHRI DINESH KENIA SHRI CHANDRAKANT GOLA (*Alternate*)
A. K. Ghosal and Sons, Kolkata	SHRI R. K. GHOSAL SHRI V. GHOSAL (*Alternate*)
Bharat Heavy Electricals Limited, New Delhi	REPERESENTATIVE
Brushwell and Co, Kolkata	SHRI JAYCHANDRA MEHTA SHRI KETAN SHAH (*Alternate*)
Brush Exports Corporation, Ghaziabad	SHRI MUKESH K. SHARMA SHRIMATI KIRAN KUMARI (*Alternate*)
Central Brush Works, Kolkata	SHRI A. K. SIKDAR SHRI A. SIKDAR (*Alternate*)
Department of Wild Life Preservation, New Delhi	REPRESENTATIVE
Directorate General of Supplies and Disposals, New Delhi	SHRI M. K. UPADHAYA SHRI S. C. CHADHA (*Alternate)*
Directorate of Marketing and Inspection, Faridabad	DR G. GOPALA RAO
Directorate of Quality Assurance (Naval), Ministry of Defence, New Delhi	SHRI R. K. SEHGAL SHRI K. K. SINGHAL (*Alternate*)
Eastern Railway, Carriage and Wagon Workshop, Howrah	SHRI ASHIS BANERJEE
Forest Research Institute, Dehra Dun	SHRI S. S. RAJPUT SHRI N. K. SHUKLA (*Alternate)*
Indian Paints Association, Kolkata	SHRI K. D. SAWANT
Ministry of Defence (DGQA), New Delhi	SHRI K. K. GHAI SHRI RAM CHANDRA (*Alternate)*
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BIS Directorate General	SHRI S. K. CHAUDHURI, Director & Head (Chem) [Representing Director General (*Ex-officio*)]

Member-Secretary
SHRI N. K. PAL
Director (Chem), BIS

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Amend No.	Date 'ssue	Text Affected

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